

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	24647
<b>Description:</b> Wearshoe	<b>Part Number:</b>	D2656-13
<b>Drawing:</b> D2656 Rev. <i>CD</i>	<b>Qty:</b>	50
		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller <b>Dwg not required</b>	LL	050902	50
2	PG	Issue P/O: <i>7608582</i> <b>Email or ship DXF file to vendor</b> Laser Cut per Dwg D2656 flat pattern D2656-13 <b>Material release note required</b>	LL	050902	50
3	RG	Receive and Inspect for transit damage <b>Ensure the material note is attached</b>	LL	0509120	50
4	QC6	Inspect dimensions per template D2656-13T1	LL	051110	49
5	GB	Deburr if necessary		N/A	LL
6	GB	Form on Brake as per Dwg D2656 using Jigs DT8261 and DT8326	SB	051118	49
7	GB	Form joggle as per Dwg D2656 using Jig DT8158 <b>Identify as D2656-13</b>	SB	051118	49
8	QC5	Inspect work to Step 7	LL	051201	49
9	FP	Powder Coat Grey (RAL-7012) (Ref. 4.3.5.5) per QSI 005 4.3	FC	051221	49
10	QC3	Inspect Powder Coat	ML	051221	49
11	FP	Identify and Stock	ML	051221	49
12	AC	Cost / part:	LL	051222	49
13	DC	Close W/O Inspect Level 21	LL	051222	49

P10

Rev	Date	Change	Revised By	Approved
B	99.03.16	Re-format	DM	
C	00.11.01	Removed P/O for Powder Coat – in house process	EC	
D	01.04.10	In house process	EC	
E	01.06.26	Added step 2 to 4, added inspection level 21	EC	
F	02.10.25	Re-format	KJ RF	

RELEASED  
02/10/30 RF

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
05-11-10	4	TOOK 1: for template. (New design.)		<i>[Signature]</i>	05-11-10	1	<i>[Signature]</i>	<i>[Signature]</i> 05-11-10

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

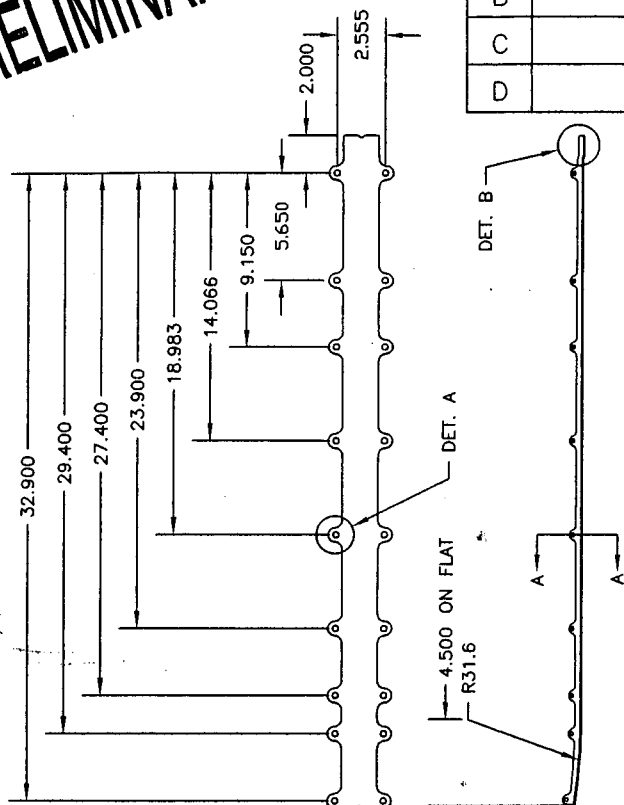
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_



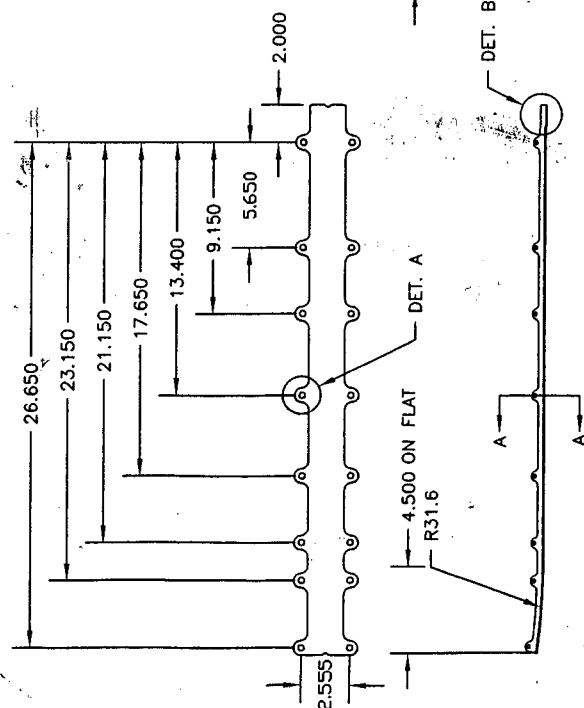
PRELIMINARY ISSUE

DESIGN	DRAWN BY <i>CP</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO. D2656	REV. D SHEET 1 OF 4
DATE 05.08.17		TITLE WEARSHOE	SCALE 1:10
A	97:03:25	NEW ISSUE	
B	97:06:02	CHANGED TABS	
C	97:06:26	R31.6 WAS R19.5	
D	05.07.17	ENLARGE ALL HOLES	

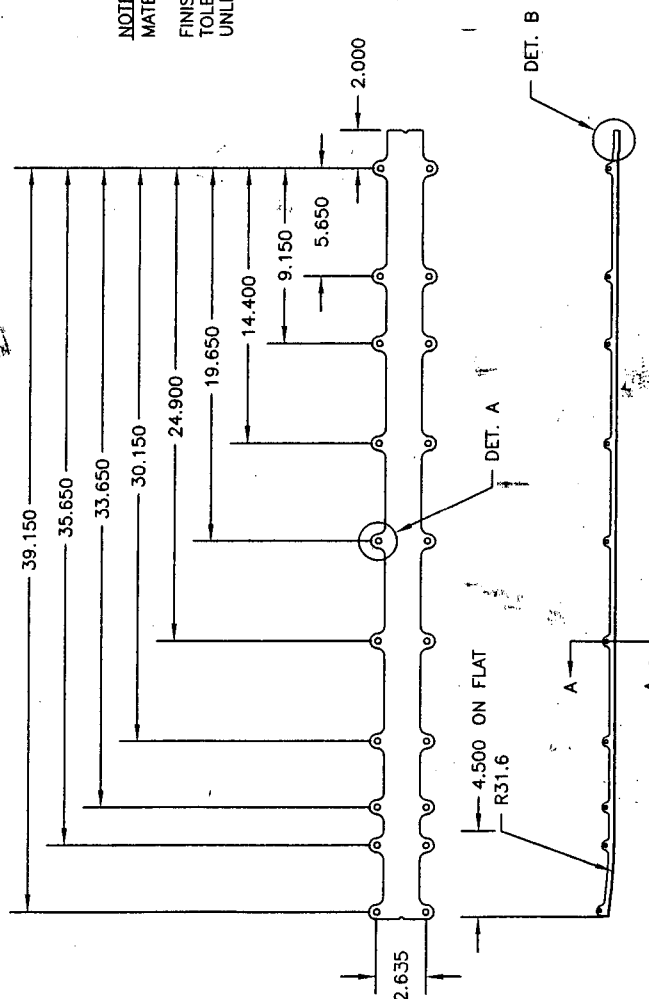
D2656-13



D2656-11



D2656-15



NOTES  
MATERIAL: AISI 1000 SERIES STEEL  
20 GAUGE (0.040 THICK)  
FINISH: POWDER COAT PER QSI 005 4.3  
TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED

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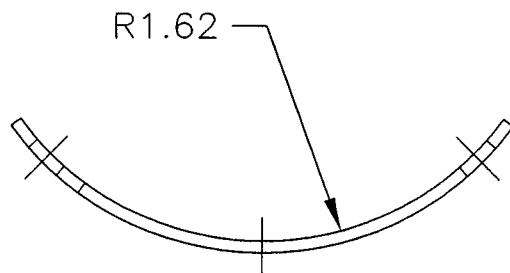
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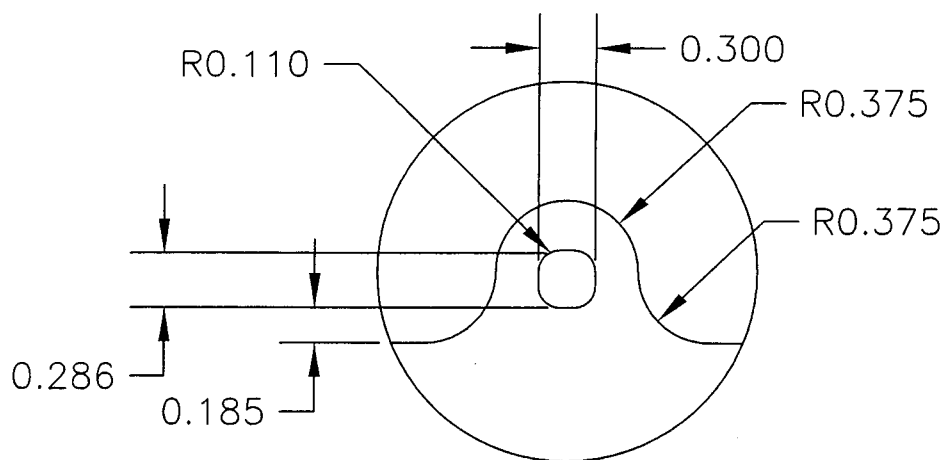
PRELIMINARY ISSUE

DESIGN	DRAWN BY <i>GP</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO. D2656	REV. D SHEET 4 OF 4
DATE 05.08.17	TITLE WEARSHOE		SCALE 1:10

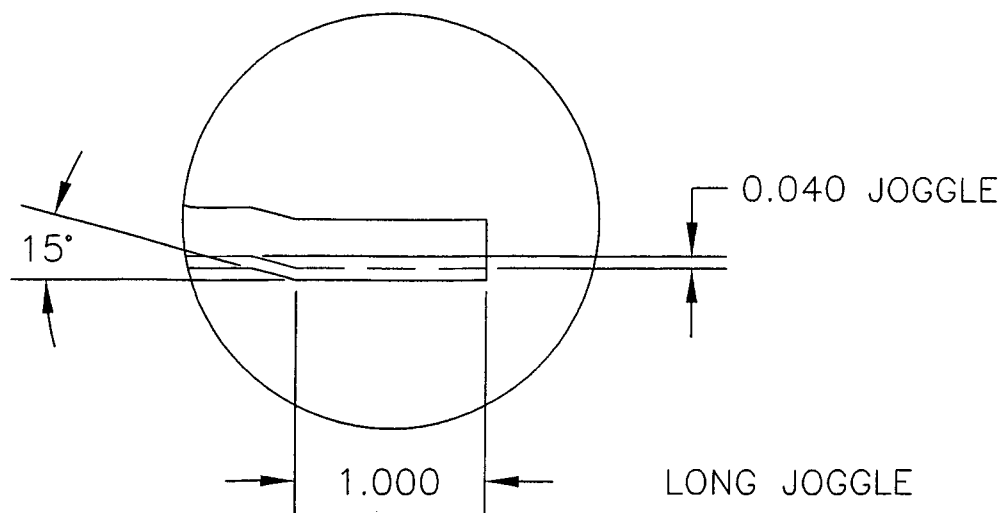
SECTION A-A



DETAIL A



DETAIL B



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# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Sep 01, 2005  
10:48 am

Work Order No : 0024147  
Project Name : D2656-13  
Project For : WK537  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2656-13  
Description : Wearplate  
Manufactured : Yes  
Amount Req'd : 50  
Amount Done : 0  
Start Date : 08-29-05  
Est Finish Date : 09-16-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Mark Up : 0.000%  
Actual Mark Up : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



New Zealand Steel Limited  
Glenbrook, South Auckland  
Postal: Private Bag 92121, Auckland, New Zealand  
Telephones: (09) 375 8999 / 375 8111 Auckland  
(09) 235 8089 / 235 3535 Waiuku  
Fax: (09) 375 8959

# TEST CERTIFICATE

Ref: 5005/21329

CUSTOMER		Wilkison		P41007PI002										SPECIFICATION										ASTMA1008 CS Type A										CERTIFICATE No										TC107796									
CUSTOMER O/N		90-21N-289												PRODUCT										CRA WIDE COIL										PAGE										1 of 1									
MILL O/N		453665												DIMENSIONS										0.033" x 48" x Coil										DATE										31 March 2005									
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT																		MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)																																	
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ( )	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH																													
		x100				x1000														x10000		x100	180°				G.L.=	HRB	( )	(feet)																							
R9-455932-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				41		2621																													
R9-455933-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				41		2723																													
R9-455934-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				50		2546																													
R9-455935-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				50		2789																													

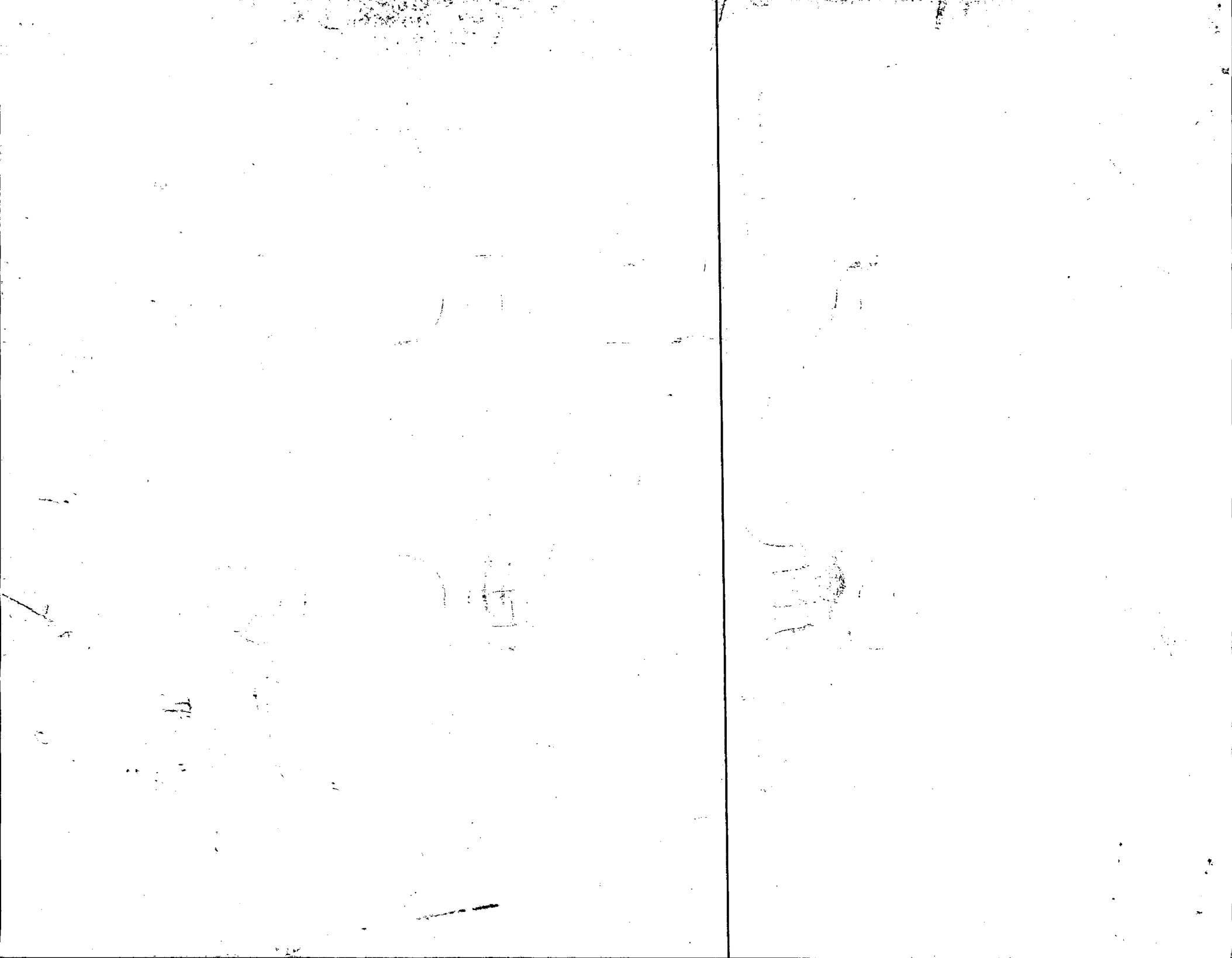
YIELD (A)=0.2% PROOF STRESS (B)=LOWER YIELD STRESS	GAUGE LENGTH (G.L.)			PLASTIC STRAIN RATIO (r)			IMPACT TEST			CARBON EQUIVALENT VALUE (CE)		
	(A)=200mm (B)=50mm	(C)=80mm (D)=5.65 ? So	(E)=2" (F)=8"	(A)=r0 (B)=r90	(C)=r45 (D)=(r0+r90+2r45) / 4		(A)=5mm x 5mm (B)=7.5mm x 10mm	(C)=5mm x 5mm (D)=2.5mm x 10mm (E)=5mm x 10mm		(A)=C+Mn/6 (B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Nj)/15	(C)=C+Mn/6+Si/24 (D)=	

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED  
WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*  
QC METALLURGIST

20 GA CRMS

1MD014-1 T M INDUSTRIAL (P41007DI002.640077)



Date: Thursday, 11/17/2005 12:08:25 PM  
 User: Linda Lacelle

## Process Sheet

<b>Customer</b>	: CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b>	: WEARSHOE
<b>Job Number</b>	: 24147		
<b>Estimate Number</b>	: 10314		
<b>P.O. Number</b>	:	<b>Part Number</b>	: D265613
<b>This Issue</b>	: 11/17/2005	<b>S.O. No.</b>	:
<b>Prsht Rev.</b>	: NC	<b>Drawing Number</b>	: D2656 REV D
<b>First Issue</b>	: / /	<b>Project Number</b>	:
<b>Previous Run</b>	: 24147	<b>Drawing Revision</b>	: D
	<b>Type</b> : PURCHASED PARTS	<b>Material</b>	:
<b>Written By</b>	:	<b>Due Date</b>	: 11/24/2005
<b>Checked &amp; Approved By</b>	:	<b>Qty:</b>	50
<b>Comment</b>	: Est: F 02.10.25 Re-format KJ/RF	<b>Um:</b>	Each

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	PG	PURCHASING
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**Comment: PURCHASING**

Issue P/O: \_\_\_\_\_

1-Email or ship DXF file to vendor

2-Laser Cut per Dwg D2656 flat pattern D2656-13

3-Material release note required

2.0	D265613F	Wearplate
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3.0	PACKAGING 1	PACKAGING RESOURCE #1
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**Comment: PACKAGING RESOURCE #1**

Receive &amp; Inspect For Transit Damage

Ensure material release note is attached

4.0	QC6	DIMENSIONAL CHECK
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**Comment: DIMENSIONAL CHECK**

Inspect dimensions per template D2656-13T1

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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**Comment: SMALL & MEDIUM FAB RESOURCE 1**

Deburr if necessary.

6.0	BRAKE NC	NC BRAKE
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**Comment: NC BRAKE**

1-Form on Brake as per Dwg D2656 using Jigs DT8261 and DT8326

2-Form joggle as per Dwg D2656 using Jig DT8158 Identify as D2656-13

Date: Thursday, 11/17/2005 12:08:25 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARSHOE

Job Number: 24147

Part Number: D265613

Job Number:



Seq. #:	Machine Or Operation:	Description :
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7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

11.0

DC

DOCUMENT CONTROL

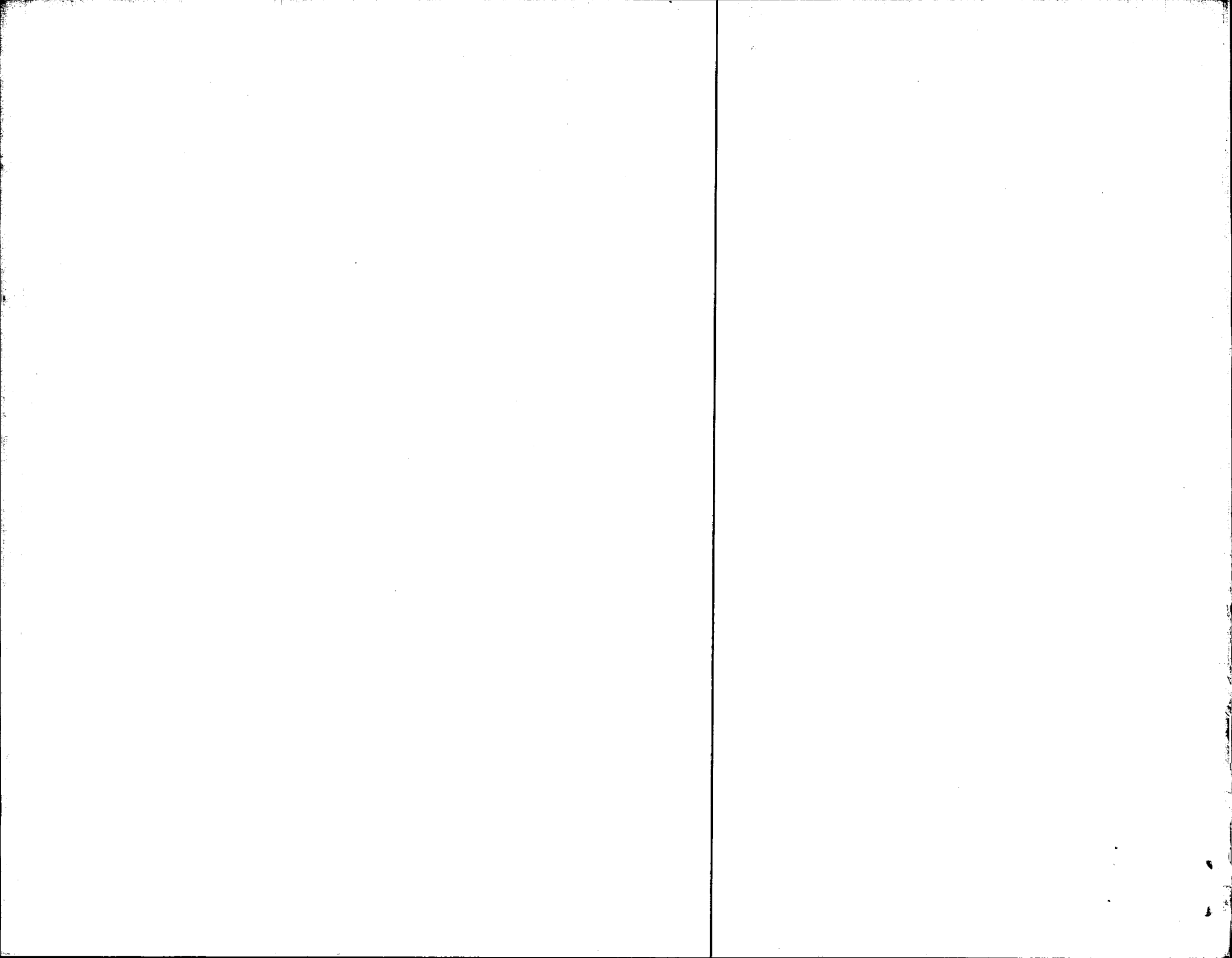


Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion





# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Nov 08, 2005  
11:05 am

Work Order No : 0024147  
Project Name : D2656-13  
Project For : WK537  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2656-13  
Description : Wearplate  
Manufactured : Yes  
Amount Req'd : 50  
Amount Done : 0  
Start Date : 08-29-05  
Est Finish Date : 09-16-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Margin : 0.000%  
Actual Margin : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	548.80	100.00	0.00	548.80
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	548.80	100.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	548.80			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	( -548.80)